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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,406	08/27/2001	Benjamin J. Bowers	0325.00502	4349
21363	7590	04/06/2004	EXAMINER	
CHRISTOPHER P. MAIORANA, P.C.			NGUYEN, HAI L	
24840 HARPER			ART UNIT	
ST. CLAIR SHORES, MI 48080			PAPER NUMBER	

2816

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/940,406

**Applicant(s)**

BOWERS ET AL.

**Examiner**

Hai L. Nguyen

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendments filed on 01/27/04 has been received and entered in the case. Applicant's arguments with respect to the prior art rejections by the previous office action mailed on 04/25/02 have been fully considered but are not deemed to be persuasive. Therefore, the prior art rejection is maintained. The arguments supporting the previous rejections are addressed in detail below.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller et al. (US 6,313,663; previously cited).

4. With regard to claims 1 and 16, Mueller et al. discloses in Fig. 7 an apparatus, and a method of use thereof, comprising an input section (702A exclude P2 & N2) configured to generate a first control signal (for controlling P2) and a second control signal (for controlling N2) in response to an input signal (408) and a select signal (EN\_RD), wherein the input section comprises a first device (708) and a second device (710) each having a source and a drain configured to connect the input signal with the first control signal and the second control signal in response to the select signal; and an output section (P2 & N2) configured to generate an

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output signal (406) in response to the first and the second control signals, wherein the output signal is related to the input signal when in a first mode (when EN\_RD is High), and disabled when in a second mode (when EN\_RD is Low). Fig. 7 of Mueller et al. meets all the claimed limitations except for one or more third devices (N2, P3 in instant Fig. 5) each have a source and a drain configured to connect the first control signal (124) and the second control signal (126) when in the first mode. However, Mueller et al. teaches in Fig. 6 a circuit having third devices that (608) has a source and a drain configured to connect the first control signal (628, gate terminal of p\_FET 618) and the second control signal (632, gate terminal of n\_FET 620) when in the first mode (when EN\_RD is High) as recited in the claims. Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to utilize that third devices taught by Mueller et al. in Fig. 7 for the advantage of passing voltage between its two control signals for controlling the output section.

With regard to claim 2, the apparatus inherently comprises a push-pull multiplexer bit. Since the apparatus of the prior art meets all the structural limitations of the claim. Therefore, the structural cooperative relationships of elements of the prior art apparatus would be considered as a push-pull multiplexer bit as recited in the claim.

With regard to claims 3-14 and 21, the reference also meets all the claimed limitations in these claims.

Claim 15 is similarly rejected. Note the above discussion with regard to claim 1.

With regard to claims 17-20, the reference also meets all the claimed limitations in these claims.

### *Response to Arguments*

5. Applicant's first argument with respect to the prior art rejections of claims 1, 15, and 16 concerning the differences between Mueller et al. and the present invention as "Mueller does not teach or suggest each and every element of the presently claimed invention." is not persuasive because all the limitations in the claims are clearly anticipated by the reference, since all of the rejection are solely based on the claimed limitations. Note the above discussion with regard to the rejections of those claims.

6. Applicant's next argument is that "In particular, contrary to the position taken in the Office Action that one skilled in the art would add the device 608 in the circuit in FIG. 7 of Mueller (see lines Office Action)" is not is not persuasive because Fig. 6 of Mueller et al. clearly teaches that when the transmission gate 608 (aka a **third device** as recited in the claims) is on and the first control signal is at logical high (VDD) that would turns p\_FET 618 off and passes that state (VDD) to the second control signal to turn n\_FET 620 on; and when the first control signal is at logical low (ground level) that would turn p\_FET 618 on and n\_FET 620 off. Thus, it would have been obvious to implement that transmission gate for controlling the output section for generating an output signal.

### *Conclusion*

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**


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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 571-272-1747 and Right Fax number is 571-273-1747. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone numbers for the organization where this application or proceeding is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1562.

HLN   
April 2, 2004

  
TIMOTHY P. CALLAHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800